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**Synthesis of Deuterated Analogs of Honokiol**

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The genus Magnolia plays a role in American as well as in Asian medicinal systems such as TCM or Japanese Kampo medicine [1, 2]. Main lignan constituents in the seeds of the north american Magnolia grandiflora are honokiol (1) and 4'-O-methyl-honokiol. They are known to possess anti-inflammatory activities with COX-2 inhibitory activity \(\text{IC}_{50}\) of about 0.1 to 3 µM.

![Chemical Structure of Honokiol](image)

From previous animal experiments, it was known that honokiol is nearly totally transformed after one single liver passage [3]. Hence, we prepared in a total synthetic manner three deuterated honokiol derivatives, which differ in number and position of the deuterium atoms.

![Chemical Structures of Deuterated Analogs of Honokiol](image)

These substances will be used in further pharmacological studies to ease further improvement of bioactive agents based on the honokiol lead structure.

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[3] Unpublished data by Prof. W. Jäger, Department of Pharmacology, University of Vienna, Austria.

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